

# Comparison of the Oral Glucose Tolerance Test and HbA1C as a diagnostic screening tool for Gestational Diabetes

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## Background

- Screening for GDM is recommended in all pregnant women with the current gold standard screening test being the OGTT.
- The OGTT requires fasting, can be inconvenient, time consuming, not tolerated by some patients and in rural communities, screening for GDM is compounded due to limited access to complete the full test.
- In these settings a measurement of the HbA1c has been utilised to determine the risk of GDM.

## Objectives

- To evaluate the performance of HbA1c test to detect Gestational Diabetes Mellitus in comparison to the OGTT.
- To assess the association between HbA1c and the risk of adverse pregnancy outcomes.

## Methods

- A prospective observational study recruiting 250 pregnant women.
- Participants were referred to Eastern Health Pathology Department for the OGTT and the HbA1c.
- A diagnosis of GDM is made as defined by the 2013 ADIPS consensus guidelines
- The population was followed up until the end of the pregnancy to determine maternal and fetal outcomes.

## Results

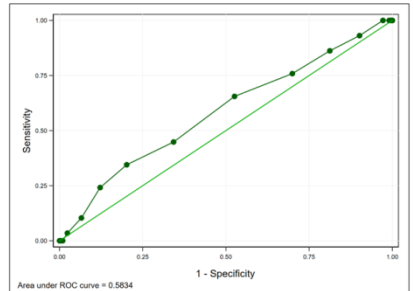


Figure 2: Receiver operative curve for the GDM diagnostic accuracy of HbA1c (Sensitivity = the probability of a test to correctly identify those with the disease; Specificity = the probability of a test to correctly identify those without the disease)

## Conclusion

- Screening for GDM is recommended in all pregnant women with the current gold standard screening test being the OGTT.
- The OGTT requires fasting, can be inconvenient, time consuming, not tolerated by some patients and in rural communities, screening for GDM is compounded due to limited access to complete the full test.
- In these settings a measurement of the HbA1c has been utilised to determine the risk of GDM.

## References

1. Nankervis A, McIntyre HD, Moses R, et al, ADIPS Consensus guidelines for the testing and diagnosis of gestational diabetes mellitus in Australia.
2. Rajput R, Yogesh Y, Rajput M, Nanda S. Utility of HbA1c for diagnosis of gestational diabetes mellitus. Diabetes Res Clin Pract